

**FIGURE 1A**CHIR 12.12 light chain:

leader:

MALPAQLLGLLMLWVSGSSG

variable:

DIVMTQSPLSLTVTPGEPASISCRSSQSLLYSNGYNYLDWYLQKPGQSPQVLISLGS  
NRASGVDPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQARQTPFTFGPGTKVDIR

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVT  
EQDSKDYSLSSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC**FIGURE 1B**CHIR-12.12 heavy chain:

leader:

MEFGLSWVFLVAILRGVQC

variable:

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYEESN  
RYHADSVKGRFTISRDN SKITLYLQMN SLRTEDTAVYYCARDGGIAAPGPDYWGQGT  
LVTVSS

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL  
QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPA  
PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAK  
TKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE  
PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDG  
SFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL  
QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPA  
PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAK  
TKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE  
PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDG  
SFFLYSKLTVDKSRWQQGNV FSCSV MHEALHNHYTQKSLSLSPGK

**FIGURE 2A**

DNA sequence of light chain of CHIR-12.12:

5'atggcgctccctgctcagctcctggggctgctaagctctgggtctctggatccagtggggatattgtgatgactcagtcctc  
cactctccctgaccgtcaccctggagagccggcctccatctcctgcaggtccagtccagcctcctgtatagtaattggata  
caactatttgattggtacctgcagaagccagggcagtcctccacaggtcctgatctcttgggttctaatacgggcctccgggg  
tcctgacaggttcagtggcagtggatcaggcacagatttacactgaaaatcagcagagtggaggctgaggatgttgggg  
tttattactgcatgaagctcgacaaactccattcatttcggccctgggaccaaagtggatatcagacgaactgtggctgca  
ccatctgtcttcatcttcccgccatctgatgagcagttgaaatctggaactgcctctgttgtgtcctgctgaataacttctatcc  
cagagaggccaaagtacagtggaggtggataacgccctccaatcgggtaactcccaggagagtgtcacagagcagga  
cagcaaggacagcacctacagcctcagcagcaccctgacgctgagcaaagcagactacgagaaacacaaagtctacgc  
ctgcgaagtcacccatcagggcctgagctcgccgtcacaagagcttaacaggggagagtgttag3'

**FIGURE 2B**

DNA sequence of heavy chain of CHIR-12.12 (including introns):

5'atggagtttgggctgagctgggttttccttgttctattttaagaggtgtccagtgtcaggtgcagttggtggagtctggggg  
aggcgtggtccagcctgggaggtccctgagactctcctgtgcagcctctggattcaccttcagtagctatggcatgcactgg  
gtccgccaggctccaggcaaggggctggagtggtggcagttatatcatatgaggaaagtaatagataacctgcagactc  
cgtgaagggccgattcacctctccagagacaattccaagatcacgctgtatctgcaaataaacagcctcagaactgagga  
cacggctgtgtattactgtgcgagagatgggggtatagcagcacctgggcctgactactggggccagggaaccctgtgca  
ccgtctcctcagcaagtaccaaggggcccatccgtcttccccctggcgccgctagcaagagcacctctgggggacacgc  
ggccctgggctgcctggtcaaggactacttccccgaaccggtgacggtgtcgtggaactcaggcgccctgaccagcggc  
gtgcacaccttcccggctgtcctacagtcctcaggactctactccctcagcagcgtggtgaccgtgcctccagcagcttg  
gcacccagacctacatctgcaactgaatcacaagcccagcaacaccaaggtggacaagagagttggtgagaggccag  
cacaggaggaggaggtgtctgtggaagccaggctcagcgctcctgcctggacgcacccggctatgcagtccagttcc  
agggcagcaaggcaggccccgtctgcctcttcacccggaggcctctgcccggccactcatgtcaggagaggggtctt  
ctggctttttcccaggctctgggcaggcacaggctagggtgcccctaaccagggcctgcacacaaaggggcaggtgctg  
ggctcagacctgccaagagccatatccgggaggacctgcccctgacctaagccccacccaaaggccaaactctccact  
ccctcagctcggacaccttctctcctcccagattccagtaactcccaattctctctgcagagcccaaatctgtgacaaaac  
tcacacatgcccaccgtgcccaggttaagccagcccaggcctcgccctccagctcaaggcgaggacaggtgccttagagta  
gcctgcacccaggagcaggcccccagccgggtgctgacacgtccacctccatcttctcctcagcacctgaactcctggggg  
gacctcagcttctcttccccccaaaacccaaggacacctcatgatctccggaccctgaggtcacatgcgtggtggt  
ggacgtgagccacgaagacctgaggtcaagttcaactggtacgtggacggcgtggaggtgcataatgccaagacaaag  
ccgggggaggagcagtacaacagcacgtaccgtgtggtcagcgtcctcaccgtcctgcaccaggactggctgaatggca  
aggagtacaagtgaaggtctccaacaaagccctcccagcccccatcgagaaaaccatctccaaagccaaaggtgggac  
ccgtgggggtgcgagggccacatggacagaggccggctcggcccaccctctgccctgagagtaccgctgtaccaacct  
ctgtccctacagggcagccccgagaaccacaggtgtacacctgccccatccgggaggagatgaccaagaaccagg  
tcagcctgacctgcctggtcaaaaggcttctatcccagcgacatcgccgtggagtgggagagcaatgggcagccggagaa  
caactacaagaccacgctcccgtgctgactccgacggctccttctctatagcaagctcaccgtggacaagagcag  
gtggcagcaggggaacgtcttctcatgctccgtgatgcatgaggtctgcacaaccactacacgcagaagagcctctccct  
gtctccgggtaaatga3'

**FIGURE 3A**CHIR-5.9 light chain:

leader:

MALLAQLLGLLMLWVPGSSG

variable:

AIVMTQPPLSSPVTLGQPASISCRSSQSLVHSDGNTYLNWLQQRPGQPPRLLIYKFF  
RRLSGVPDRFSGSGAGTDFTLKISRVEAEDVGVIYCMQVTQFPHTFGQGRLEIK

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNFPYPREAKVQWKVDNALQSGNSQESVT  
EQDSKDYSLSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC**FIGURE 3B**CHIR-5.9 heavy chain:

leader:

MGSTAILALLLAVLQGVCA

variable:

EVQLVQSGAEVKKPGESLKISCKGSGYSFTSYWIGWVRQMPGKGLEWMGIIPGDS  
TRYSPSFQGVTTISADKSISTAYLQWSSLKASDTAMYYCARGTAAGRDYYYYYGM  
DVWGQGTITVTVSS

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL  
QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPA  
PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAK  
TKPREEQYNSTYRVSVLTVHLHQLDNLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE  
PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDG  
SFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVL  
QSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPA  
PELLGGPSVFLFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAK  
TKPREEQYNSTYRVSVLTVHLHQLDNLNGKEYKCKVSNKALPAPIEKTISKAKGQPRE  
PQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDG  
SFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

**FIGURE 4A**

Coding sequence for short isoform of human CD40:

```
1 atggttcgct tgcctctgca gtgcgtcctc tggggctgct tctgaccgc tgcctatcca
61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgttctttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tcttgaaac ggaatgcctt
181 ccttgcggtg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggctggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggctttggg gtcaagcaga ttgctacagg gggttctgat
421 accatctgcg agccctgccc agtcggcttc ttctccaatg tgcctctgc ttctgaaaaa
481 tgtcacctt ggacaaggtc ccaggatcg gctgagagcc ctggtggtga tccccatcat
541 cttcgggatc ctgtttgcca tctcttggg gctggtcttt atcaaaaagg tggccaagaa
601 gccaaccaat aa
```

**FIGURE 4B**

Encoded short isoform of human CD40:

```
1 mvrplqcvi wgclltavhp epptacrekq ylinsqccsl cpggqklvsd ctefteteci
61 pcgesefldt wnrethchqh kydcplnlr vqkgtsed tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvsd ticepcpvgf fsnvssafek chpwtrspgs aespqgdphh
181 lrdpvchplg aglyqkqgqe anq
```

**FIGURE 4C**

Coding sequence for long isoform of human CD40:

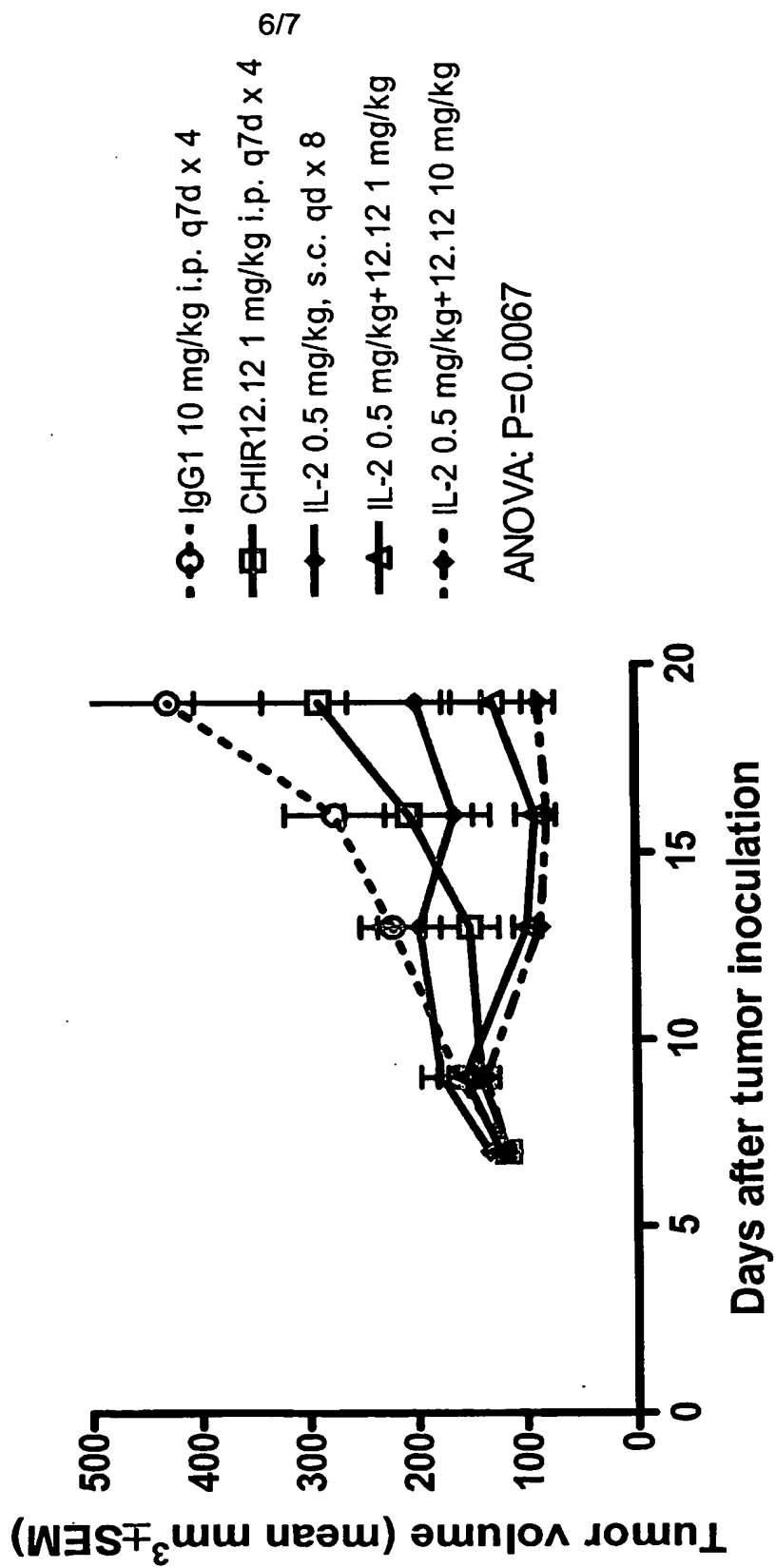
```
1 atggttcgtc tgcctctgca gtgcgtcctc tggggctgct tctgaccgc tgtccatcca
61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgttcttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tcttgaaac ggaatgcctt
181 ccttgccgtg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggtggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggctttggg gtcaagcaga ttgctacagg ggtttctgat
421 accatctgcg agccctgccc agtcggcttc ttctccaatg tgtcatctgc ttctgaaaaa
481 tgtaccctt ggacaagctg tgagacaaa gacctggttg tgcaacaggc aggcacaaac
541 aagactgatg ttgtctgtgg tcccaggat cggctgagag ccctggtggt gatccccatc
601 atcttcggga tctgtttgc catcctcttg gtgctggtct ttatcaaaaa ggtggccaag
661 aagccaacca ataaggcccc ccacccaag caggaacccc aggagatcaa tttcccgac
721 gatcttctg gctccaacac tgctgtcca gtgcaggaga cttacatgg atgccaaccg
781 gtcaccagg aggatggcaa agagagtcgc atctcagtc aggagagaca gtga
```

**FIGURE 4D**

Encoded long isoform of human CD40:

```
1 mvrllplqcvl wgciltavhp epptacrekq ylinsqccsl cpggqklvsd cteftetecI
61 pcgesefldt wnrethchqh kydpnlglr vqqkgsetd tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvsd ticepcvvgf fsnvssafek chpwtscetk dlvvqqagtn
181 ktdvvcpqpd rlralvvipi ifgilfaill vlvfikkvak kptnkaphpk qepqeinfpd
241 dlpgsntaap vqetlhgcqp vtqedgkesr isvqerq
```

FIGURE 5



**FIGURE 6**